

REPORT OF QUESTIONNAIRE SUB-COMMITTEE

Report to AD HOC
Committee on Human Subjects
for
Biomechanical Research

University of Michigan

December 6, 1974

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Edward H. Harris

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This subcommittee developed the questionnaire shown in Appendix I. It was submitted to the mailing list developed at the first meeting held in Oklahoma City on November 14, 1973. Over 80 were sent out and 13 responses were received as of this date. Of these only five indicated availability of human cadaveric material. One respondent, New Mexico State University, indicated that procurement of human cadaveric material was under study. Five, including New Mexico State University, indicated availability of crash sleds. A listing of the questionnaire respondents and abstract of answers is included as Appendix 2. It should be noted that for purposes of brevity the category organizational type has been coded as follows:

- I - Industry
- EP - Engineering profit
- ENP - Engineering non-profit
- E - Educational
- G - Government

and major funding sources has been coded for yes answers as follows:

1. Internal
2. Contracts
3. Research Grants
4. Will accept Contract Work
5. Will bid for Contract Work

There are insufficient responses to provide a comprehensive picture of the ability in this country or abroad to conduct research with cadaveric material.

It is proposed that the questionnaires be retained by this subcommittee as an information resource, copies will be made available on request to individuals wishing to obtain a more detailed picture of a laboratory's capability. Should anyone wish to have information relative to their organizations included, or have their present questionnaire responses updated, they can communicate with the subcommittee members.

AD HOC COMMITTEE ON HUMAN SUBJECTS FOR BIOMECHANICAL RESEARCH

Questionnaire on Laboratory Facilities

Respondent

Name: _____

Title: _____

Address: _____
 _____ Zip _____

Phone: AC / _____

A. The Laboratory being reported upon is:

Name: _____

Address: _____
 _____ Zip _____

Phone: AC / _____

(Parent Organization or
 Affiliation) _____

Organizational Type: Industry []

Engineering Profit: [] Non-Profit: []

Educational: [] Government []

Yes

No

B.	<u>Major Funding Sources:</u>	Internal	[]	[]
		Contracts	[]	[]
		Research Grants	[]	[]
		Will accept Contract Work	[]	[]
		Will bid for Contract Work	[]	[]

C. Research Capability

(1) **Equipment** - List major equipment or experimental capability for Biomechanical Research available in-house (crash sled, droptowers, shakers and other test devices, instrumentation, data reduction equipment, computer, etc.)

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

- (2) Available space and associated facilities (cold storage, surgical rooms, etc.)

- (3) Availability of Biological Material (Cadaver: fresh, embalmed, type, quality, restrictions on use, living subjects, primates, subprimates etc,)

- (4) List of current publications issued from your Laboratory

- (5) Staff available: (indicate titles, degrees etc., of onboard professional personnel)

- (6) Support facilities and Staff (pathology, instrumentation computer, machine shop, fitting rooms etc,)

[illegible]

- (7) Any other information about laboratory which seems of importance

[illegible]

D. Major Areas of Research Interest

Kinematics []

Tolerance []

Others _____

_____(1). Current Biomechanical ProgramTitles: _____
_____Description: _____

_____Sponsors: _____

E. Do you wish to keep any of this information confidential?

Yes []

No []

If yes, which elements? _____

If yes, may we include the confidential data in general
statistical compilations? Yes [] No []

Signed _____

Date _____

Appendix 2

LISTING OF QUESTIONNAIRE RESPONDANTS

Universities:

1. Brigham Young University - (Charles Y. Warner, Professor of Mechanical Engineering)
 Engineering Dynamics Laboratory
 Affiliation - Eyring Research Institute
 Organizational Type: EP and E
 Funding Sources: 2, 3, 4, 5
 Equipment: Sled and associated support
 Research Subjects: Cadaveric Material: human, animal
 Living: animal
2. Chalmers University of Technology - (Bertil Aldman, Professor, M.D.)
 Department of Traffic Safety
 Organizational Type: E and G
 Funding Sources: 3 and 4
 Equipment: Sled and associated support
 Research Subjects: Cadaveric: none
 Living: human, pigs
3. New Mexico State University - (Harold R. Lawrence)
 Daisy Deceleration Track, Holloman AFB
 Organizational Type: E and N.P.
 Funding Sources: 2, 4, 5
 Equipment: Sled and associated support
 Research Subjects: Cadaveric: animal, human under study
 Living: human, animal
4. Tulane University-(Y. King Liu, Ph.D., Professor of Biomechanics)
 Biomechanics Laboratory
 Organizational Type: E
 Funding Sources: 3, 4, 5
 Equipment: Sled (primate only) and associated support
 Research Subjects: Cadaveric: human, animal
 Living: human, animal
5. Tualne University - (Edward H. Harris, Professor of Mechanical Engineering)
 Engineering Laboratories
 Organizational Type: E
 Funding Sources: 2,3, 4, 5
 Equipment: Engineering Laboratory - no sled
 Research Subjects: Cadaveric: human, animal
 Living: human, animal
6. University of Birmingham - (Murray Mackay, Ph.D.)
 Department of Transportation Accidental Research Unit
 Organizational Type: E

6. (continued)
 Funding Sources: 2, 3, 4
 Equipment: Accident studies only, N/A
 Research Subjects: Accident studies, N/A
7. Wayne State University - (Lawrence M. Patrick, Professor)
 (Albert I. King, Professor)
 Mechanical Engineering Science, Biomechanics Research Center
 Organizational Type: E, NP
 Funding Sources: 1, 2, 3, 4, 5
 Equipment: Sleds, vertical accelerator, and associated support
 Research Subjects: Cadaveric: human, animal
 Living: human, animal
8. West Virginia University - (Dr. Sunder H. Advani, Associate Professor)
 College of Engineering, Mechanical Engineering and Mechanics
 Organizational Type: E
 Funding Sources: 1, 2, 3, 4, 5
 Equipment: Impactor and associated support
 Research Subjects: Cadaveric: human, animal
 Living: animal

Industry (Non-Profit)

9. Motor Industry Research Association (MIRA) - (J.A. Searle, Senior Research Engineer)
 Organizational Type: NP
 Funding Sources: 2, 3, 4, 5
 Equipment: Sled, small impactor and associated support
 Research Subjects: none
10. Southwest Research Institute - (John R. Cromack, Manager Vehicle Safety Section)
 Department of Automotive Research
 Organizational Type: NP
 Funding Sources: 1, 2, 3, 4, 5
 Equipment: Sled and associated support
 Research Subjects: Cadaveric: human, animal
 Living: human, animal

Government:

11. Federal Aviation Agency - (Richard F. Chandler, Chief)
 Protection and Survival Laboratory, Civil Aeromedical Institute, Aeronautical Center
 Organization Type: G
 Funding Sources: 1, 4
 Equipment: Sled, Drop Tower and associated support
 Research Subjects: Cadaveric: human, animal
 Living: animal

Industry:

12. Cessna Aircraft Co - (Duane L. Lee, Aircraft Safety Engineer)
Department 80
Organizational Type: I manufacturing
Funding Sources: 1
Equipment: Sled and associated support
Research Subjects: none
13. Chrysler Corporation - (Jule Brinn, Biomechanics Specialist)
CIM 418-3-1-02
Organizational Type: I manufacturing
Funding Sources: 1, 2
Equipment: --
Research Subjects: none